Wisconsin Department of Agriculture, Trade and Consumer Protection

Business Impact Analysis[1]

Rule Subject: **Fertilizer and Pesticide Bulk Storage**
Adm. Code Reference: **ATCP 32 and 33 (consolidated into ATCP 33)**
Rules Clearinghouse #: **Not yet assigned**
DATCP Docket #: **02-R-11**

Rule Description

This rule consolidates and updates current rules related to commercial bulk storage of fertilizer and pesticides. Bulk storage rules are designed to prevent spills that can injure persons, property and the environment. Spill prevention also saves costly environmental cleanups. The Department of Agriculture, Trade and Consumer Protection (DATCP) developed this rule in consultation with an industry advisory committee.

Businesses Affected

This rule applies to commercial facilities that store unpackaged *bulk* fertilizer or pesticides. This rule does *not* apply to any of the following:

- Manure storage.
- On-farm storage, mixing or loading of fertilizer or pesticides for on-farm use (not for sale or distribution).
- Facilities that store only packaged fertilizer or pesticides.

DATCP estimates that 10-15% of the businesses affected by this rule are "small businesses." Although farmers are not directly affected by this rule, compliance costs (and cleanup cost savings) may be passed on to farmers in the form of higher (or lower) prices for fertilizer and pesticides. DATCP estimates that these secondary price effects will be negligible overall.

Rule Consolidation

DATCP currently administers separate bulk storage rules for fertilizer and pesticides. Since many facilities store fertilizer *and* pesticides, this rule consolidates fertilizer and pesticide bulk storage rules. This consolidation will eliminate unnecessary repetition, and make it easier for operators to understand and comply with the rules.

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[1] This analysis includes, but is not limited to, a small business analysis ("regulatory flexibility analysis") under s. 227.114, Stats..

Key Rule Provisions

This rule includes the following key provisions:

Construction Plans

- An operator who constructs or substantially alters a storage facility must file plans (design specifications) with DATCP.
- A professional engineer must certify that the plans comply with this rule.
- DATCP may review and comment on the plans (it is not required to do so). An operator is not required to obtain DATCP approval.
- DATCP may grant a variance for a nonconforming feature that provides substantially equivalent spill protection.
- The operator or a person of the operator's choosing must inspect the construction of *new concrete structures* (mixing and loading pads or secondary containment structures), to ensure that construction conforms to plans.

Storage Facility Siting

New mixing and loading pads, secondary containment structures and bulk dry fertilizer buildings must be located at least 5 feet above bedrock and groundwater, at least 1,000 feet from any navigable lake, at least 300 feet from any navigable stream, and outside any 100-year floodplain. These siting limitations do *not* affect the use, reconstruction, expansion or alteration of an existing structure.

Storage Containers and Appurtenances

This rule updates and clarifies current standards related to:

- Construction of storage containers and appurtenances.
- Storage container security.
- Filling, labeling and venting storage containers.
- Underground storage restrictions.
- Storage container inspection and maintenance.
- Abandoned storage containers.
- Dry product storage.

This rule incorporates American Petroleum Institute construction and inspection standards for field-erected tanks (which are typically over 50,000 gallons). Since 1985, the number of fertilizer storage tanks with a capacity over 50,000 gallons has more than doubled, and some new tanks have a capacity of up to 2 million gallons. In other Midwest states, at least 4 large fertilizer tanks (each containing more than one million gallons) have ruptured since 1997. This rule will help protect against these types of incidents.

Mixing and Loading Pads

Current rules require mixing and loading pads, to catch spills from mixing and loading operations. This rule clarifies construction requirements, to prevent leaks. A mixing and loading pad must comply with the following requirements (there are limited exceptions):

- It must be liquid-tight.
- It must have adequate capacity (per this rule).
- It must be constructed of concrete, according to standards specified in this rule.
- It must be served by a pump and storage container that can be used to recover and store spilled liquid.
- It must be designed and constructed to withstand foreseeable load conditions.
- It must be protected from precipitation runoff from surrounding surfaces.
- It may not have a precipitation drain.

Secondary Containment Structures; General

Under current rules, liquid storage containers must be located within a secondary containment structure that can contain discharges from the storage containers (there are limited exceptions). This rule clarifies construction requirements for secondary containment facilities, to prevent leaks. This rule permits any of the following types of secondary containment structures (the rule specifies construction standards for each type):

- A portland cement concrete structure.
- A block wall structure (this rule allows continued use of preexisting facilities for one year only).
- A secondary containment system that uses a synthetic liner.
- One or more prefabricated basins.
- A steel structure constructed in place.
- An earthen structure with an appropriate earthen liner.
- A building floor (secondary containment for mobile and mini-bulk containers only).
- A mixing and loading pad that complies with this rule (see above).
- Bladder.
- Tank-in-tank.

Sumps

If a mixing and loading pad or secondary containment structure drains to a sump, the sump must comply with standards under this rule (DATCP has found many leaking and inoperable sumps). The sump must be liquid-tight, and must be served by a pump and storage container. New sumps must be constructed of concrete, according to standards in this rule. Sumps must be periodically inspected, and maintained as necessary.

Discharge Response

This rule updates discharge response procedures, including spill reporting requirements (no spill report is required if discharge is fully contained by a mixing and loading pad or secondary containment structure). This rule also updates current discharge response plan requirements.

Disposal of Discharges, Rinsate and Collected Precipitation

An operator must safely use or dispose of discharges, rinsate and precipitation recovered from a mixing and loading pad or secondary containment structure. This rule spells out practical use and disposal options.

Transporting Bulk Fertilizer or Pesticide

This rule establishes basic standards for safe transportation of bulk fertilizer and pesticides by storage facility operators.

Environmental Assessments

Under this rule, an operator must check for possible environmental contamination whenever a mixing and loading pad, sump or secondary containment structure leaks, is removed, or remains out of service for over 5 years. The operator must conduct preliminary soil and groundwater tests, as necessary, and must report the results to DATCP.

Recordkeeping

Under current rules, an operator must keep records related to a storage facility. This rule adds some record keeping requirements, but eliminates others. An operator must keep records for at least 3 years, or for as long as the operator owns the facility (depending on the type of record).

Real Estate Sale or Lease; Disclosure

Under this rule, an operator must do all of the following before the operator sells or leases storage facility real estate for a different use (this rule does not limit other disclosures that may be required under other applicable law):

- Notify DATCP of the impending sale or lease.
- Disclose to the purchaser or lessee that the real estate has been used as a storage facility.

Effect on Existing Facilities

This rule establishes some new construction standards for fertilizer and pesticide storage facilities (see above). The new standards address problems (such as leaking structures) found in current storage facilities. But the new standards apply only to structures that are *constructed or substantially altered* after the rule effective date.

Spill Prevention and Cleanup Costs

DATCP currently administers an agricultural chemical cleanup program, funded by fertilizer and pesticide license fees. Under that program, DATCP compensates facility operators for fertilizer and pesticide spill cleanup costs. Proper construction and maintenance of storage facilities can reduce spills and spill cleanup costs.

This rule does not change the agricultural chemical cleanup program. But by improving storage facility construction and maintenance, this rule will help minimize spills and spill cleanup costs. That will help to control costs under the agricultural chemical cleanup program.

Effects on Businesses

Cost Savings

The rule will save environmental cleanup costs for affected businesses. DATCP has found that a large number of current facilities have leaking containment facilities (for example, DATCP has found leaking sumps at nearly a third of mixing and loading facilities where sumps were tested). The design and construction standards in this rule will help to prevent leaks, structural failures and other spills. Environmental investigation and cleanup costs are many times larger than preventive design and construction costs.

DATCP projects that, over the next 5 years, it will investigate 60 facilities with leaking containment structures. DATCP estimates that, of these facilities:

- 10% will need to investigate the leak (at a cost of about $5,500 per facility), but will not need conduct an environmental cleanup. Total industry cost for these facilities will be about $33,000 over 5 years, or $6,600 per year.
- 30% will need to investigate and conduct a small cleanup (at a cost of about $20,000 per facility). Total industry cost for these facilities will be about $360,000 over 5 years, or $72,000 per year.
- 50% will need a larger cleanup and groundwater monitoring (at a cost of about $100,000 per facility). Total industry cost for these facilities will be about $3 million over 5 years, or $600,000 per year.

- 10% percent of facilities will need large soil and groundwater cleanups (at a cost of at least $200,000 per facility. Total industry cost for these facilities will be about 1.2 million over 5 years, or $240,000 per year.

Total annual cleanup costs to the industry are therefore projected at $918,600 per year. DATCP expects to reimburse a portion of this cleanup cost, under the Agricultural Chemical Cleanup Program. But the cleanup fund is financed by license fee surcharges paid by the entire industry.

This rule does not require retrofits to existing facilities, but does improve standards for the construction of new or substantially altered facilities. Over time, these new standards will prevent many of the leakage problems that now occur. Based on cleanup cost projections above, this rule will eventually save the industry approximately $500,000 to $1 million per year.

This rule will also eliminate some current construction, inspection and recordkeeping requirements that have produced little or no environmental benefit. These changes will save some costs for affected businesses.

Costs to Comply

This rule will add costs for some affected businesses. Affected businesses may incur increased costs related to:

- Professional design of containment structures.
- More rigorous construction standards for new mixing and loading pads, sumps and secondary containment structures.
- More rigorous construction and inspection requirements for new field-constructed storage tanks (typically over 50,000 gallons). However, most facilities are already meeting the American Petroleum Institute standards required by this rule.

This rule may add design and construction costs for concrete structures as follows:

- $2,500 to $3,000 for a concrete mixing and loading pad (including sump), depending on the size of the pad.
- $3,000 to $4,500 for a concrete secondary containment structure used for storing bulk pesticides.

DATCP projects the construction of 10 new mixing and loading pads and 5 new concrete secondary containment structures used for storing bulk pesticides each year. The total additional cost for these new structures may amount to $40,000 to $52,500 per year (for the entire industry).

Most new *fertilizer* secondary containment structures will use synthetic liners (not concrete). Synthetic liner systems constructed according to this rule will be cheaper than new concrete structures built according to this rule, but will be $4,000 to $7,000 more expensive than concrete structures built under current rules (depending on system size).

DATCP estimates that 5 synthetic liner systems will be installed each year for the next 10 years because of this rule. Construction standards under this rule will increase annual industry-wide costs by $20,000 to $35,000 per year for these new structures.

Under this rule, large field-erected storage tanks (typically over 50,000 gallons) must be constructed and inspected according to American Petroleum Institute (API) standards. Most tanks of this size are already being constructed to API standards, so this rule is not expected to add construction costs. API inspection will cost about $5,000 per storage tank every 5 years (or $1,000 per year). Wisconsin currently has fewer than 30 field-erected storage tanks, and many operators are already having API inspections performed on their tanks. DATCP therefore estimates that the total net increase in inspection costs, for the entire industry, will be less than $30,000 per year.

This rule modifies current inspection and recordkeeping requirements, adding some new requirements and eliminating others. DATCP estimates that these changes will, on balance, neither increase nor decrease industry costs.

Based on the above assumptions, DATCP estimates that this rule will cost the industry an additional $90,000 to $117,000 per year, beginning immediately. This compares to a long-term cost savings of $500,000 to $1 million per year (see above).

Small Business Impact

Approximately 10-15% of the businesses affected by this rule are small businesses. These businesses typically operate smaller storage facilities, with smaller structures. Therefore, their compliance costs will typically be lower than for other affected businesses. DATCP estimates that small businesses will incur compliance costs of $5,000 per year (total for all small businesses), but will realize long-term cleanup savings of $50,000 to $100,000 per year (total for all small businesses). Although this rule will affect some small businesses, it will not have a significant adverse impact on a significant number of small businesses.

Steps to Assist Small Business

DATCP has worked with University of Wisconsin - Extension to spell out minimum design standards for concrete structures (including mixing and loading pads and secondary containment structures), so that engineering firms will not have to design these structures from scratch. The rule also provides a mechanism by which DATCP can review plans and provide constructive suggestions. This will minimize design costs for small businesses.

This rule eliminates obsolete and unnecessary requirements, and clarifies current requirements, so they will be easier to read and understand. This rule will help small businesses by preventing spills that may require costly environmental cleanups.

Conclusion

This rule will impose additional costs on some businesses, including small businesses. However, overall industry costs are far outweighed by long-term cost savings. This rule will not have a significant adverse impact on farmers or small businesses. DATCP has taken steps to minimize costs for small business.

Dated this _____ day of _____, 2005

STATE OF WISCONSIN
DEPARTMENT OF AGRICULTURE,
TRADE AND CONSUMER PROTECTION

By _____
Kathy F. Pielsticker, Administrator
Division of Agricultural Resource Management